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## Leaded Varistors

### Standard Series

#### Construction

- Round varistor element, leaded
- Coating: epoxy resin, flame-retardant to UL 94 V-0
- Terminals: tinned copper wire

#### Features

- Wide operating voltage range 11 ... 1100 V<sub>RMS</sub>
- No derating up to 85 °C ambient temperature
- PSpice models

#### Approvals

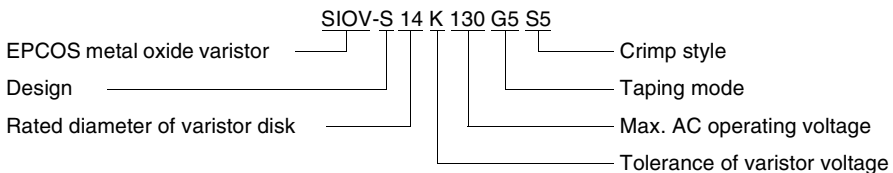
- UL
- CSA (all types ≥ K115)
- SEV
- VDE
- CECC

#### Taping

- For ordering information see page 206 ff, chapter "Leaded Varistors: Taping"

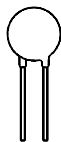
#### Type designation

Detailed description of coding system on page 39, chapter "General Technical Information"



#### General technical data

|                                               |                         |                                  |
|-----------------------------------------------|-------------------------|----------------------------------|
| Climatic category                             | 40/85/56                | in accordance with IEC 60068-1   |
| LCT                                           | – 40 °C                 |                                  |
| UCT                                           | + 85 °C                 |                                  |
| Damp heat, steady state<br>(93 % r.h., 40 °C) | 56 days                 | in accordance with IEC 60068-2-3 |
| Operating temperature                         | – 40 ... + 85 °C        | in accordance with CECC 42 000   |
| Storage temperature                           | – 40 ... + 125 °C       |                                  |
| Electric strength                             | ≥ 2,5 kV <sub>RMS</sub> | in accordance with CECC 42 000   |
| Insulation resistance                         | ≥ 10 MΩ                 | in accordance with CECC 42 000   |
| Response time                                 | < 25 ns                 |                                  |

**Leaded Varistors****Standard Series****Maximum ratings** ( $T_A = 85\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | Ordering code   | $V_{\text{RMS}}$<br>V | $V_{\text{DC}}$<br>V | $i_{\text{max}}$<br>8/20 $\mu\text{s}$<br>A | $W_{\text{max}}$<br>(2 ms)<br>J | $P_{\text{max}}$<br>W |
|----------------------------|-----------------|-----------------------|----------------------|---------------------------------------------|---------------------------------|-----------------------|
| S05K11                     | B72205S0110K101 | 11                    | 14                   | 100                                         | 0,3                             | 0,01                  |
| S07K11                     | B72207S0110K101 | 11                    | 14                   | 250                                         | 0,8                             | 0,02                  |
| S10K11                     | B72210S0110K101 | 11                    | 14                   | 500                                         | 1,7                             | 0,05                  |
| S14K11                     | B72214S0110K101 | 11                    | 14                   | 1000                                        | 3,2                             | 0,10                  |
| S20K11                     | B72220S0110K101 | 11                    | 14                   | 2000                                        | 10,0                            | 0,20                  |
| S05K14                     | B72205S0140K101 | 14                    | 18                   | 100                                         | 0,4                             | 0,01                  |
| S07K14                     | B72207S0140K101 | 14                    | 18 <sup>1)</sup>     | 250                                         | 0,9                             | 0,02                  |
| S10K14                     | B72210S0140K101 | 14                    | 18 <sup>1)</sup>     | 500                                         | 2,0                             | 0,05                  |
| S14K14                     | B72214S0140K101 | 14                    | 18 <sup>1)</sup>     | 1000                                        | 4,0                             | 0,10                  |
| S20K14                     | B72220S0140K101 | 14                    | 18 <sup>1)</sup>     | 2000                                        | 12,0                            | 0,20                  |
| S05K17                     | B72205S0170K101 | 17                    | 22                   | 100                                         | 0,5                             | 0,01                  |
| S07K17                     | B72207S0170K101 | 17                    | 22                   | 250                                         | 1,1                             | 0,02                  |
| S10K17                     | B72210S0170K101 | 17                    | 22                   | 500                                         | 2,5                             | 0,05                  |
| S14K17                     | B72214S0170K101 | 17                    | 22                   | 1000                                        | 5,0                             | 0,10                  |
| S20K17                     | B72220S0170K101 | 17                    | 22                   | 2000                                        | 14,0                            | 0,20                  |
| S05K20                     | B72205S0200K101 | 20                    | 26                   | 100                                         | 0,6                             | 0,01                  |
| S07K20                     | B72207S0200K101 | 20                    | 26                   | 250                                         | 1,3                             | 0,02                  |
| S10K20                     | B72210S0200K101 | 20                    | 26                   | 500                                         | 3,1                             | 0,05                  |
| S14K20                     | B72214S0200K101 | 20                    | 26                   | 1000                                        | 6,0                             | 0,10                  |
| S20K20                     | B72220S0200K101 | 20                    | 26                   | 2000                                        | 18,0                            | 0,20                  |
| S05K25                     | B72205S0250K101 | 25                    | 31                   | 100                                         | 0,7                             | 0,01                  |
| S07K25                     | B72207S0250K101 | 25                    | 31                   | 250                                         | 1,6                             | 0,02                  |
| S10K25                     | B72210S0250K101 | 25                    | 31                   | 500                                         | 3,7                             | 0,05                  |
| S14K25                     | B72214S0250K101 | 25                    | 31                   | 1000                                        | 7,0                             | 0,10                  |
| S20K25                     | B72220S0250K101 | 25                    | 31                   | 2000                                        | 22,0                            | 0,20                  |
| S05K30                     | B72205S0300K101 | 30                    | 38                   | 100                                         | 0,9                             | 0,01                  |
| S07K30                     | B72207S0300K101 | 30                    | 38                   | 250                                         | 2,0                             | 0,02                  |
| S10K30                     | B72210S0300K101 | 30                    | 38                   | 500                                         | 4,4                             | 0,05                  |
| S14K30                     | B72214S0300K101 | 30                    | 38                   | 1000                                        | 9,0                             | 0,10                  |
| S20K30                     | B72220S0300K101 | 30                    | 38                   | 2000                                        | 26,0                            | 0,20                  |

1) Jump-start strength (max. 24 V, 5 minutes)



# Leaded Varistors

## Standard Series

### Characteristics ( $T_A = 25\text{ °C}$ )

| Type<br>(untaped)<br>SIOV- | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | Max. clamping voltage |          | $C_{typ}$<br>(1 kHz)<br>pF | Derating<br>curve<br>Page | V/I char-<br>acteristic<br>Page |
|----------------------------|----------------------|-----------------------------|-----------------------|----------|----------------------------|---------------------------|---------------------------------|
|                            |                      |                             | $v$<br>V              | $i$<br>A |                            |                           |                                 |
| S05K11                     | 18                   | $\pm 10$                    | 36                    | 1,0      | 1750                       | 246                       | 274                             |
| S07K11                     | 18                   | $\pm 10$                    | 36                    | 2,5      | 2750                       | 246                       | 275                             |
| S10K11                     | 18                   | $\pm 10$                    | 36                    | 5,0      | 6250                       | 248                       | 276                             |
| S14K11                     | 18                   | $\pm 10$                    | 36                    | 10,0     | 12100                      | 249                       | 277                             |
| S20K11                     | 18                   | $\pm 10$                    | 36                    | 20,0     | 23000                      | 251                       | 278                             |
| S05K14                     | 22                   | $\pm 10$                    | 43                    | 1,0      | 1450                       | 246                       | 274                             |
| S07K14                     | 22                   | $\pm 10$                    | 43                    | 2,5      | 2300                       | 246                       | 275                             |
| S10K14                     | 22                   | $\pm 10$                    | 43                    | 5,0      | 5200                       | 248                       | 276                             |
| S14K14                     | 22                   | $\pm 10$                    | 43                    | 10,0     | 9950                       | 249                       | 277                             |
| S20K14                     | 22                   | $\pm 10$                    | 43                    | 20,0     | 19000                      | 251                       | 278                             |
| S05K17                     | 27                   | $\pm 10$                    | 53                    | 1,0      | 1200                       | 246                       | 274                             |
| S07K17                     | 27                   | $\pm 10$                    | 53                    | 2,5      | 1900                       | 246                       | 275                             |
| S10K17                     | 27                   | $\pm 10$                    | 53                    | 5,0      | 4350                       | 248                       | 276                             |
| S14K17                     | 27                   | $\pm 10$                    | 53                    | 10,0     | 8200                       | 249                       | 277                             |
| S20K17                     | 27                   | $\pm 10$                    | 53                    | 20,0     | 15600                      | 251                       | 278                             |
| S05K20                     | 33                   | $\pm 10$                    | 65                    | 1,0      | 980                        | 246                       | 274                             |
| S07K20                     | 33                   | $\pm 10$                    | 65                    | 2,5      | 1600                       | 246                       | 275                             |
| S10K20                     | 33                   | $\pm 10$                    | 65                    | 5,0      | 3650                       | 248                       | 276                             |
| S14K20                     | 33                   | $\pm 10$                    | 65                    | 10,0     | 6800                       | 249                       | 277                             |
| S20K20                     | 33                   | $\pm 10$                    | 65                    | 20,0     | 13000                      | 251                       | 278                             |
| S05K25                     | 39                   | $\pm 10$                    | 77                    | 1,0      | 850                        | 246                       | 274                             |
| S07K25                     | 39                   | $\pm 10$                    | 77                    | 2,5      | 1400                       | 246                       | 275                             |
| S10K25                     | 39                   | $\pm 10$                    | 77                    | 5,0      | 3200                       | 248                       | 276                             |
| S14K25                     | 39                   | $\pm 10$                    | 77                    | 10,0     | 5850                       | 249                       | 277                             |
| S20K25                     | 39                   | $\pm 10$                    | 77                    | 20,0     | 11100                      | 251                       | 278                             |
| S05K30                     | 47                   | $\pm 10$                    | 93                    | 1,0      | 720                        | 246                       | 274                             |
| S07K30                     | 47                   | $\pm 10$                    | 93                    | 2,5      | 1200                       | 246                       | 275                             |
| S10K30                     | 47                   | $\pm 10$                    | 93                    | 5,0      | 2750                       | 248                       | 276                             |
| S14K30                     | 47                   | $\pm 10$                    | 93                    | 10,0     | 4950                       | 249                       | 277                             |
| S20K30                     | 47                   | $\pm 10$                    | 93                    | 20,0     | 9350                       | 251                       | 278                             |



# Leaded Varistors

## Standard Series

Maximum ratings ( $T_A = 85\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | Ordering code   | $V_{RMS}$<br>V | $V_{DC}$<br>V | $i_{max}$<br>8/20 $\mu\text{s}$<br>A | $W_{max}$<br>(2 ms)<br>J | $P_{max}$<br>W |
|----------------------------|-----------------|----------------|---------------|--------------------------------------|--------------------------|----------------|
| S05K35                     | B72205S0350K101 | 35             | 45            | 100                                  | 1,1                      | 0,01           |
| S07K35                     | B72207S0350K101 | 35             | 45            | 250                                  | 2,5                      | 0,02           |
| S10K35                     | B72210S0350K101 | 35             | 45            | 500                                  | 5,4                      | 0,05           |
| S14K35                     | B72214S0350K101 | 35             | 45            | 1000                                 | 10,0                     | 0,10           |
| S20K35                     | B72220S0350K101 | 35             | 45            | 2000                                 | 33,0                     | 0,20           |
| S05K40                     | B72205S0400K101 | 40             | 56            | 100                                  | 1,3                      | 0,01           |
| S07K40                     | B72207S0400K101 | 40             | 56            | 250                                  | 3,0                      | 0,02           |
| S10K40                     | B72210S0400K101 | 40             | 56            | 500                                  | 6,4                      | 0,05           |
| S14K40                     | B72214S0400K101 | 40             | 56            | 1000                                 | 13,0                     | 0,10           |
| S20K40                     | B72220S0400K101 | 40             | 56            | 2000                                 | 37,0                     | 0,20           |
| S05K50                     | B72205S0500K101 | 50             | 65            | 400                                  | 1,8                      | 0,10           |
| S07K50                     | B72207S0500K101 | 50             | 65            | 1200                                 | 4,2                      | 0,25           |
| S10K50                     | B72210S0500K101 | 50             | 65            | 2500                                 | 8,4                      | 0,40           |
| S14K50                     | B72214S0500K101 | 50             | 65            | 4500                                 | 15,0                     | 0,60           |
| S20K50                     | B72220S0500K101 | 50             | 65            | 6500                                 | 27,0                     | 1,00           |
| S05K60                     | B72205S0600K101 | 60             | 85            | 400                                  | 2,2                      | 0,10           |
| S07K60                     | B72207S0600K101 | 60             | 85            | 1200                                 | 4,8                      | 0,25           |
| S10K60                     | B72210S0600K101 | 60             | 85            | 2500                                 | 10,0                     | 0,40           |
| S14K60                     | B72214S0600K101 | 60             | 85            | 4500                                 | 17,0                     | 0,60           |
| S20K60                     | B72220S0600K101 | 60             | 85            | 6500                                 | 33,0                     | 1,00           |
| S05K75                     | B72205S0750K101 | 75             | 100           | 400                                  | 2,5                      | 0,10           |
| S07K75                     | B72207S0750K101 | 75             | 100           | 1200                                 | 5,9                      | 0,25           |
| S10K75                     | B72210S0750K101 | 75             | 100           | 2500                                 | 12,0                     | 0,40           |
| S14K75                     | B72214S0750K101 | 75             | 100           | 4500                                 | 20,0                     | 0,60           |
| S20K75                     | B72220S0750K101 | 75             | 100           | 6500                                 | 40,0                     | 1,00           |
| S05K95                     | B72205S0950K101 | 95             | 125           | 400                                  | 3,4                      | 0,10           |
| S07K95                     | B72207S0950K101 | 95             | 125           | 1200                                 | 7,6                      | 0,25           |
| S10K95                     | B72210S0950K101 | 95             | 125           | 2500                                 | 15,0                     | 0,40           |
| S14K95                     | B72214S0950K101 | 95             | 125           | 4500                                 | 25,0                     | 0,60           |
| S20K95                     | B72220S0950K101 | 95             | 125           | 6500                                 | 50,0                     | 1,00           |



# Leaded Varistors

## Standard Series

### Characteristics ( $T_A = 25\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | Max. clamping voltage |          | $C_{typ}$<br>(1 kHz)<br>pF | Derating<br>curve<br>Page | V/I char-<br>acteristic<br>Page |
|----------------------------|----------------------|-----------------------------|-----------------------|----------|----------------------------|---------------------------|---------------------------------|
|                            |                      |                             | $v$<br>V              | $i$<br>A |                            |                           |                                 |
| S05K35                     | 56                   | $\pm 10$                    | 110                   | 1,0      | 620                        | 246                       | 274                             |
| S07K35                     | 56                   | $\pm 10$                    | 110                   | 2,5      | 1050                       | 246                       | 275                             |
| S10K35                     | 56                   | $\pm 10$                    | 110                   | 5,0      | 2400                       | 248                       | 276                             |
| S14K35                     | 56                   | $\pm 10$                    | 110                   | 10,0     | 4200                       | 249                       | 277                             |
| S20K35                     | 56                   | $\pm 10$                    | 110                   | 20,0     | 8000                       | 251                       | 278                             |
| S05K40                     | 68                   | $\pm 10$                    | 135                   | 1,0      | 520                        | 246                       | 274                             |
| S07K40                     | 68                   | $\pm 10$                    | 135                   | 2,5      | 900                        | 246                       | 275                             |
| S10K40                     | 68                   | $\pm 10$                    | 135                   | 5,0      | 2100                       | 248                       | 276                             |
| S14K40                     | 68                   | $\pm 10$                    | 135                   | 10,0     | 3550                       | 249                       | 277                             |
| S20K40                     | 68                   | $\pm 10$                    | 135                   | 20,0     | 6750                       | 251                       | 278                             |
| S05K50                     | 82                   | $\pm 10$                    | 135                   | 5,0      | 300                        | 247                       | 274                             |
| S07K50                     | 82                   | $\pm 10$                    | 135                   | 10,0     | 530                        | 247                       | 275                             |
| S10K50                     | 82                   | $\pm 10$                    | 135                   | 25,0     | 950                        | 248                       | 276                             |
| S14K50                     | 82                   | $\pm 10$                    | 135                   | 50,0     | 1800                       | 250                       | 277                             |
| S20K50                     | 82                   | $\pm 10$                    | 135                   | 100,0    | 3800                       | 251                       | 278                             |
| S05K60                     | 100                  | $\pm 10$                    | 165                   | 5,0      | 250                        | 247                       | 274                             |
| S07K60                     | 100                  | $\pm 10$                    | 165                   | 10,0     | 480                        | 247                       | 275                             |
| S10K60                     | 100                  | $\pm 10$                    | 165                   | 25,0     | 870                        | 248                       | 276                             |
| S14K60                     | 100                  | $\pm 10$                    | 165                   | 50,0     | 1650                       | 250                       | 277                             |
| S20K60                     | 100                  | $\pm 10$                    | 165                   | 100,0    | 3600                       | 251                       | 278                             |
| S05K75                     | 120                  | $\pm 10$                    | 200                   | 5,0      | 210                        | 247                       | 274                             |
| S07K75                     | 120                  | $\pm 10$                    | 200                   | 10,0     | 430                        | 247                       | 275                             |
| S10K75                     | 120                  | $\pm 10$                    | 200                   | 25,0     | 720                        | 248                       | 276                             |
| S14K75                     | 120                  | $\pm 10$                    | 200                   | 50,0     | 1370                       | 250                       | 277                             |
| S20K75                     | 120                  | $\pm 10$                    | 200                   | 100,0    | 2900                       | 251                       | 278                             |
| S05K95                     | 150                  | $\pm 10$                    | 250                   | 5,0      | 135                        | 247                       | 274                             |
| S07K95                     | 150                  | $\pm 10$                    | 250                   | 10,0     | 260                        | 247                       | 275                             |
| S10K95                     | 150                  | $\pm 10$                    | 250                   | 25,0     | 530                        | 248                       | 276                             |
| S14K95                     | 150                  | $\pm 10$                    | 250                   | 50,0     | 870                        | 250                       | 277                             |
| S20K95                     | 150                  | $\pm 10$                    | 250                   | 100,0    | 1830                       | 251                       | 278                             |

**Leaded Varistors****Standard Series****Maximum ratings** ( $T_A = 85\text{ }^{\circ}\text{C}$ )

| Type<br>(untyped)<br>SIOV- | Ordering code   | $V_{\text{RMS}}$<br>V | $V_{\text{DC}}$<br>V | $i_{\text{max}}$<br>8/20 $\mu\text{s}$<br>A | $W_{\text{max}}$<br>(2 ms)<br>J | $P_{\text{max}}$<br>W |
|----------------------------|-----------------|-----------------------|----------------------|---------------------------------------------|---------------------------------|-----------------------|
| S05K115                    | B72205S0111K101 | 115                   | 150                  | 400                                         | 3,6                             | 0,10                  |
| S07K115                    | B72207S0111K101 | 115                   | 150                  | 1200                                        | 8,4                             | 0,25                  |
| S10K115                    | B72210S0111K101 | 115                   | 150                  | 2500                                        | 18,0                            | 0,40                  |
| S14K115                    | B72214S0111K101 | 115                   | 150                  | 4500                                        | 30,0                            | 0,60                  |
| S20K115                    | B72220S0111K101 | 115                   | 150                  | 6500                                        | 60,0                            | 1,00                  |
| S05K130                    | B72205S0131K101 | 130                   | 170                  | 400                                         | 4,2                             | 0,10                  |
| S07K130                    | B72207S0131K101 | 130                   | 170                  | 1200                                        | 9,5                             | 0,25                  |
| S10K130                    | B72210S0131K101 | 130                   | 170                  | 2500                                        | 19,0                            | 0,40                  |
| S14K130                    | B72214S0131K101 | 130                   | 170                  | 4500                                        | 34,0                            | 0,60                  |
| S20K130                    | B72220S0131K101 | 130                   | 170                  | 8000                                        | 74,0                            | 1,00                  |
| S05K140                    | B72205S0141K101 | 140                   | 180                  | 400                                         | 4,5                             | 0,10                  |
| S07K140                    | B72207S0141K101 | 140                   | 180                  | 1200                                        | 10,0                            | 0,25                  |
| S10K140                    | B72210S0141K101 | 140                   | 180                  | 2500                                        | 22,0                            | 0,40                  |
| S14K140                    | B72214S0141K101 | 140                   | 180                  | 4500                                        | 36,0                            | 0,60                  |
| S20K140                    | B72220S0141K101 | 140                   | 180                  | 8000                                        | 78,0                            | 1,00                  |
| S05K150                    | B72205S0151K101 | 150                   | 200                  | 400                                         | 4,9                             | 0,10                  |
| S07K150                    | B72207S0151K101 | 150                   | 200                  | 1200                                        | 11,0                            | 0,25                  |
| S10K150                    | B72210S0151K101 | 150                   | 200                  | 2500                                        | 24,0                            | 0,40                  |
| S14K150                    | B72214S0151K101 | 150                   | 200                  | 4500                                        | 40,0                            | 0,60                  |
| S20K150                    | B72220S0151K101 | 150                   | 200                  | 8000                                        | 85,0                            | 1,00                  |
| S05K175                    | B72205S0171K101 | 175                   | 225                  | 400                                         | 5,6                             | 0,10                  |
| S07K175                    | B72207S0171K101 | 175                   | 225                  | 1200                                        | 13,0                            | 0,25                  |
| S10K175                    | B72210S0171K101 | 175                   | 225                  | 2500                                        | 28,0                            | 0,40                  |
| S14K175                    | B72214S0171K101 | 175                   | 225                  | 4500                                        | 46,0                            | 0,60                  |
| S20K175                    | B72220S0171K101 | 175                   | 225                  | 8000                                        | 98,0                            | 1,00                  |
| S05K230                    | B72205S0231K101 | 230                   | 300                  | 400                                         | 7,2                             | 0,10                  |
| S07K230                    | B72207S0231K101 | 230                   | 300                  | 1200                                        | 17,0                            | 0,25                  |
| S10K230                    | B72210S0231K101 | 230                   | 300                  | 2500                                        | 36,0                            | 0,40                  |
| S14K230                    | B72214S0231K101 | 230                   | 300                  | 4500                                        | 60,0                            | 0,60                  |
| S20K230                    | B72220S0231K101 | 230                   | 300                  | 8000                                        | 130,0                           | 1,00                  |
| S05K250                    | B72205S0251K101 | 250                   | 320                  | 400                                         | 8,2                             | 0,10                  |
| S07K250                    | B72207S0251K101 | 250                   | 320                  | 1200                                        | 19,0                            | 0,25                  |
| S10K250                    | B72210S0251K101 | 250                   | 320                  | 2500                                        | 38,0                            | 0,40                  |
| S14K250                    | B72214S0251K101 | 250                   | 320                  | 4500                                        | 65,0                            | 0,60                  |
| S20K250                    | B72220S0251K101 | 250                   | 320                  | 8000                                        | 140,0                           | 1,00                  |



# Leaded Varistors

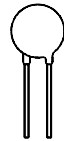
## Standard Series

### Characteristics ( $T_A = 25\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | Max. clamping voltage |          | $C_{typ}$<br>(1 kHz)<br>pF | Derating<br>curve<br>Page | V/I char-<br>acteristic<br>Page |
|----------------------------|----------------------|-----------------------------|-----------------------|----------|----------------------------|---------------------------|---------------------------------|
|                            |                      |                             | $v$<br>V              | $i$<br>A |                            |                           |                                 |
| S05K115                    | 180                  | $\pm 10$                    | 300                   | 5,0      | 110                        | 247                       | 274                             |
| S07K115                    | 180                  | $\pm 10$                    | 300                   | 10,0     | 220                        | 247                       | 275                             |
| S10K115                    | 180                  | $\pm 10$                    | 300                   | 25,0     | 445                        | 248                       | 276                             |
| S14K115                    | 180                  | $\pm 10$                    | 300                   | 50,0     | 730                        | 250                       | 277                             |
| S20K115                    | 180                  | $\pm 10$                    | 300                   | 100,0    | 1520                       | 251                       | 278                             |
| S05K130                    | 205                  | $\pm 10$                    | 340                   | 5,0      | 100                        | 247                       | 274                             |
| S07K130                    | 205                  | $\pm 10$                    | 340                   | 10,0     | 200                        | 247                       | 275                             |
| S10K130                    | 205                  | $\pm 10$                    | 340                   | 25,0     | 400                        | 248                       | 276                             |
| S14K130                    | 205                  | $\pm 10$                    | 340                   | 50,0     | 650                        | 250                       | 277                             |
| S20K130                    | 205                  | $\pm 10$                    | 340                   | 100,0    | 1340                       | 252                       | 278                             |
| S05K140                    | 220                  | $\pm 10$                    | 360                   | 5,0      | 95                         | 247                       | 274                             |
| S07K140                    | 220                  | $\pm 10$                    | 360                   | 10,0     | 180                        | 247                       | 275                             |
| S10K140                    | 220                  | $\pm 10$                    | 360                   | 25,0     | 370                        | 248                       | 276                             |
| S14K140                    | 220                  | $\pm 10$                    | 360                   | 50,0     | 610                        | 250                       | 277                             |
| S20K140                    | 220                  | $\pm 10$                    | 360                   | 100,0    | 1240                       | 252                       | 278                             |
| S05K150                    | 240                  | $\pm 10$                    | 395                   | 5,0      | 90                         | 247                       | 274                             |
| S07K150                    | 240                  | $\pm 10$                    | 395                   | 10,0     | 170                        | 247                       | 275                             |
| S10K150                    | 240                  | $\pm 10$                    | 395                   | 25,0     | 350                        | 248                       | 276                             |
| S14K150                    | 240                  | $\pm 10$                    | 395                   | 50,0     | 570                        | 250                       | 277                             |
| S20K150                    | 240                  | $\pm 10$                    | 395                   | 100,0    | 1160                       | 252                       | 278                             |
| S05K175                    | 270                  | $\pm 10$                    | 455                   | 5,0      | 75                         | 247                       | 274                             |
| S07K175                    | 270                  | $\pm 10$                    | 455                   | 10,0     | 150                        | 247                       | 275                             |
| S10K175                    | 270                  | $\pm 10$                    | 455                   | 25,0     | 300                        | 248                       | 276                             |
| S14K175                    | 270                  | $\pm 10$                    | 455                   | 50,0     | 490                        | 250                       | 277                             |
| S20K175                    | 270                  | $\pm 10$                    | 455                   | 100,0    | 1000                       | 252                       | 278                             |
| S05K230                    | 360                  | $\pm 10$                    | 595                   | 5,0      | 60                         | 247                       | 274                             |
| S07K230                    | 360                  | $\pm 10$                    | 595                   | 10,0     | 115                        | 247                       | 275                             |
| S10K230                    | 360                  | $\pm 10$                    | 595                   | 25,0     | 230                        | 248                       | 276                             |
| S14K230                    | 360                  | $\pm 10$                    | 595                   | 50,0     | 380                        | 250                       | 277                             |
| S20K230                    | 360                  | $\pm 10$                    | 595                   | 100,0    | 760                        | 252                       | 278                             |
| S05K250                    | 390                  | $\pm 10$                    | 650                   | 5,0      | 55                         | 247                       | 274                             |
| S07K250                    | 390                  | $\pm 10$                    | 650                   | 10,0     | 105                        | 247                       | 275                             |
| S10K250                    | 390                  | $\pm 10$                    | 650                   | 25,0     | 215                        | 248                       | 276                             |
| S14K250                    | 390                  | $\pm 10$                    | 650                   | 50,0     | 350                        | 250                       | 277                             |
| S20K250                    | 390                  | $\pm 10$                    | 650                   | 100,0    | 700                        | 252                       | 278                             |

**Leaded Varistors****Standard Series****Maximum ratings** ( $T_A = 85\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | Ordering code   | $V_{\text{RMS}}$<br><br>V | $V_{\text{DC}}$<br><br>V | $i_{\text{max}}$<br>8/20 $\mu\text{s}$<br>A | $W_{\text{max}}$<br>(2 ms)<br>J | $P_{\text{max}}$<br><br>W |
|----------------------------|-----------------|---------------------------|--------------------------|---------------------------------------------|---------------------------------|---------------------------|
| S05K275                    | B72205S0271K101 | 275                       | 350                      | 400                                         | 8,6                             | 0,10                      |
| S07K275                    | B72207S0271K101 | 275                       | 350                      | 1200                                        | 21,0                            | 0,25                      |
| S10K275                    | B72210S0271K101 | 275                       | 350                      | 2500                                        | 43,0                            | 0,40                      |
| S14K275                    | B72214S0271K101 | 275                       | 350                      | 4500                                        | 71,0                            | 0,60                      |
| S20K275                    | B72220S0271K101 | 275                       | 350                      | 8000                                        | 151,0                           | 1,00                      |
| S05K300                    | B72205S0301K101 | 300                       | 385                      | 400                                         | 9,6                             | 0,10                      |
| S07K300                    | B72207S0301K101 | 300                       | 385                      | 1200                                        | 23,0                            | 0,25                      |
| S10K300                    | B72210S0301K101 | 300                       | 385                      | 2500                                        | 47,0                            | 0,40                      |
| S14K300                    | B72214S0301K101 | 300                       | 385                      | 4500                                        | 76,0                            | 0,60                      |
| S20K300                    | B72220S0301K101 | 300                       | 385                      | 8000                                        | 173,0                           | 1,00                      |
| S10K320                    | B72210S0321K101 | 320                       | 420                      | 2500                                        | 50,0                            | 0,40                      |
| S14K320                    | B72214S0321K101 | 320                       | 420                      | 4500                                        | 84,0                            | 0,60                      |
| S20K320                    | B72220S0321K101 | 320                       | 420                      | 8000                                        | 184,0                           | 1,00                      |
| S05K385                    | B72205S0381K101 | 385                       | 505                      | 400                                         | 13,0                            | 0,10                      |
| S07K385                    | B72207S0381K101 | 385                       | 505                      | 1200                                        | 28,0                            | 0,25                      |
| S10K385                    | B72210S0381K101 | 385                       | 505                      | 2500                                        | 40,0                            | 0,40                      |
| S14K385                    | B72214S0381K101 | 385                       | 505                      | 4500                                        | 80,0                            | 0,60                      |
| S20K385                    | B72220S0381K101 | 385                       | 505                      | 8000                                        | 150,0                           | 1,00                      |
| S05K420                    | B72205S0421K101 | 420                       | 560                      | 400                                         | 14,0                            | 0,10                      |
| S07K420                    | B72207S0421K101 | 420                       | 560                      | 1200                                        | 32,0                            | 0,25                      |
| S10K420                    | B72210S0421K101 | 420                       | 560                      | 2500                                        | 45,0                            | 0,40                      |
| S14K420                    | B72214S0421K101 | 420                       | 560                      | 4500                                        | 90,0                            | 0,60                      |
| S20K420                    | B72220S0421K101 | 420                       | 560                      | 8000                                        | 175,0                           | 1,00                      |
| S05K440                    | B72205S0441K101 | 440                       | 585                      | 400                                         | 16,0                            | 0,10                      |
| S07K440                    | B72207S0441K101 | 440                       | 585                      | 1200                                        | 34,0                            | 0,25                      |
| S10K440                    | B72210S0441K101 | 440                       | 585                      | 2500                                        | 47,0                            | 0,40                      |
| S14K440                    | B72214S0441K101 | 440                       | 585                      | 4500                                        | 95,0                            | 0,60                      |
| S20K440                    | B72220S0441K101 | 440                       | 585                      | 8000                                        | 185,0                           | 1,00                      |
| S05K460                    | B72205S0461K101 | 460                       | 615                      | 400                                         | 18,0                            | 0,10                      |
| S07K460                    | B72207S0461K101 | 460                       | 615                      | 1200                                        | 36,0                            | 0,25                      |
| S10K460                    | B72210S0461K101 | 460                       | 615                      | 2500                                        | 50,0                            | 0,40                      |
| S14K460                    | B72214S0461K101 | 460                       | 615                      | 4500                                        | 100,0                           | 0,60                      |
| S20K460                    | B72220S0461K101 | 460                       | 615                      | 8000                                        | 195,0                           | 1,00                      |



# Leaded Varistors

## Standard Series

### Characteristics ( $T_A = 25\text{ °C}$ )

| Type<br>(untaped)<br>SIOV- | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | Max. clamping voltage |          | $C_{typ}$<br>(1 kHz)<br>pF | Derating<br>curve<br>Page | V/I char-<br>acteristic<br>Page |
|----------------------------|----------------------|-----------------------------|-----------------------|----------|----------------------------|---------------------------|---------------------------------|
|                            |                      |                             | $v$<br>V              | $i$<br>A |                            |                           |                                 |
| S05K275                    | 430                  | $\pm 10$                    | 710                   | 5,0      | 50                         | 247                       | 274                             |
| S07K275                    | 430                  | $\pm 10$                    | 710                   | 10,0     | 95                         | 247                       | 275                             |
| S10K275                    | 430                  | $\pm 10$                    | 710                   | 25,0     | 195                        | 248                       | 276                             |
| S14K275                    | 430                  | $\pm 10$                    | 710                   | 50,0     | 320                        | 250                       | 277                             |
| S20K275                    | 430                  | $\pm 10$                    | 710                   | 100,0    | 630                        | 252                       | 278                             |
| S05K300                    | 470                  | $\pm 10$                    | 775                   | 5,0      | 45                         | 247                       | 274                             |
| S07K300                    | 470                  | $\pm 10$                    | 775                   | 10,0     | 90                         | 247                       | 275                             |
| S10K300                    | 470                  | $\pm 10$                    | 775                   | 25,0     | 180                        | 248                       | 276                             |
| S14K300                    | 470                  | $\pm 10$                    | 775                   | 50,0     | 300                        | 250                       | 277                             |
| S20K300                    | 470                  | $\pm 10$                    | 775                   | 100,0    | 580                        | 252                       | 278                             |
| S10K320                    | 510                  | $\pm 10$                    | 840                   | 25,0     | 170                        | 248                       | 276                             |
| S14K320                    | 510                  | $\pm 10$                    | 840                   | 50,0     | 280                        | 250                       | 277                             |
| S20K320                    | 510                  | $\pm 10$                    | 840                   | 100,0    | 540                        | 252                       | 278                             |
| S05K385                    | 620                  | $\pm 10$                    | 1025                  | 5,0      | 40                         | 247                       | 274                             |
| S07K385                    | 620                  | $\pm 10$                    | 1025                  | 10,0     | 75                         | 247                       | 275                             |
| S10K385                    | 620                  | $\pm 10$                    | 1025                  | 25,0     | 150                        | 249                       | 276                             |
| S14K385                    | 620                  | $\pm 10$                    | 1025                  | 50,0     | 240                        | 250                       | 277                             |
| S20K385                    | 620                  | $\pm 10$                    | 1025                  | 100,0    | 450                        | 252                       | 278                             |
| S05K420                    | 680                  | $\pm 10$                    | 1120                  | 5,0      | 35                         | 247                       | 274                             |
| S07K420                    | 680                  | $\pm 10$                    | 1120                  | 10,0     | 65                         | 247                       | 275                             |
| S10K420                    | 680                  | $\pm 10$                    | 1120                  | 25,0     | 135                        | 249                       | 276                             |
| S14K420                    | 680                  | $\pm 10$                    | 1120                  | 50,0     | 220                        | 250                       | 277                             |
| S20K420                    | 680                  | $\pm 10$                    | 1120                  | 100,0    | 420                        | 252                       | 278                             |
| S05K440                    | 715                  | $\pm 10$                    | 1180                  | 5,0      | 32                         | 247                       | 274                             |
| S07K440                    | 715                  | $\pm 10$                    | 1180                  | 10,0     | 60                         | 247                       | 275                             |
| S10K440                    | 715                  | $\pm 10$                    | 1180                  | 25,0     | 125                        | 249                       | 276                             |
| S14K440                    | 715                  | $\pm 10$                    | 1180                  | 50,0     | 210                        | 250                       | 277                             |
| S20K440                    | 715                  | $\pm 10$                    | 1180                  | 100,0    | 400                        | 252                       | 278                             |
| S05K460                    | 750                  | $\pm 10$                    | 1240                  | 5,0      | 30                         | 247                       | 274                             |
| S07K460                    | 750                  | $\pm 10$                    | 1240                  | 10,0     | 55                         | 247                       | 275                             |
| S10K460                    | 750                  | $\pm 10$                    | 1240                  | 25,0     | 120                        | 249                       | 276                             |
| S14K460                    | 750                  | $\pm 10$                    | 1240                  | 50,0     | 200                        | 250                       | 277                             |
| S20K460                    | 750                  | $\pm 10$                    | 1240                  | 100,0    | 380                        | 252                       | 278                             |



## Leaded Varistors

### Standard Series

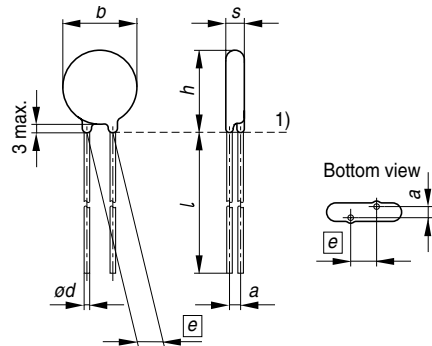
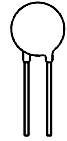
#### Maximum ratings ( $T_A = 85\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | Ordering code   | $V_{\text{RMS}}$<br>V | $V_{\text{DC}}$<br>V | $i_{\text{max}}$<br>8/20 $\mu\text{s}$<br>A | $W_{\text{max}}$<br>(2 ms)<br>J | $P_{\text{max}}$<br>W |
|----------------------------|-----------------|-----------------------|----------------------|---------------------------------------------|---------------------------------|-----------------------|
| S10K510                    | B72210S0511K101 | 510                   | 670                  | 2500                                        | 55,0                            | 0,40                  |
| S14K510                    | B72214S0511K101 | 510                   | 670                  | 4500                                        | 110,0                           | 0,60                  |
| S20K510                    | B72220S0511K101 | 510                   | 670                  | 6500                                        | 190,0                           | 1,00                  |
| S10K550                    | B72210S0551K101 | 550                   | 745                  | 2500                                        | 60,0                            | 0,40                  |
| S14K550                    | B72214S0551K101 | 550                   | 745                  | 4500                                        | 120,0                           | 0,60                  |
| S20K550                    | B72220S0551K101 | 550                   | 745                  | 6500                                        | 210,0                           | 1,00                  |
| S10K625                    | B72210S0621K101 | 625                   | 825                  | 2500                                        | 68,0                            | 0,40                  |
| S14K625                    | B72214S0621K101 | 625                   | 825                  | 4500                                        | 130,0                           | 0,60                  |
| S20K625                    | B72220S0621K101 | 625                   | 825                  | 6500                                        | 230,0                           | 1,00                  |
| S10K680                    | B72210S0681K101 | 680                   | 895                  | 2500                                        | 72,0                            | 0,40                  |
| S14K680                    | B72214S0681K101 | 680                   | 895                  | 4500                                        | 140,0                           | 0,60                  |
| S20K680                    | B72220S0681K101 | 680                   | 895                  | 6500                                        | 250,0                           | 1,00                  |
| S14K1000 <sup>1)</sup>     | B72214S0102K101 | 1100                  | 1465                 | 4500                                        | 230,0                           | 0,60                  |
| S20K1000 <sup>1)</sup>     | B72220S0102K101 | 1100                  | 1465                 | 6500                                        | 410,0                           | 1,00                  |

#### Characteristics ( $T_A = 25\text{ }^{\circ}\text{C}$ )

| Type<br>(untaped)<br>SIOV- | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | Max. clamping voltage |          | $C_{\text{typ}}$<br>(1 kHz)<br>pF | Derating<br>curve<br>Page | V/I char-<br>acteristic<br>Page |
|----------------------------|----------------------|-----------------------------|-----------------------|----------|-----------------------------------|---------------------------|---------------------------------|
|                            |                      |                             | $v$<br>V              | $i$<br>A |                                   |                           |                                 |
| S10K510                    | 820                  | $\pm 10$                    | 1355                  | 25,0     | 110                               | 249                       | 276                             |
| S14K510                    | 820                  | $\pm 10$                    | 1355                  | 50,0     | 180                               | 250                       | 277                             |
| S20K510                    | 820                  | $\pm 10$                    | 1355                  | 100,0    | 340                               | 253                       | 278                             |
| S10K550                    | 910                  | $\pm 10$                    | 1500                  | 25,0     | 105                               | 249                       | 276                             |
| S14K550                    | 910                  | $\pm 10$                    | 1500                  | 50,0     | 170                               | 250                       | 277                             |
| S20K550                    | 910                  | $\pm 10$                    | 1500                  | 100,0    | 320                               | 253                       | 278                             |
| S10K625                    | 1000                 | $\pm 10$                    | 1650                  | 25,0     | 90                                | 249                       | 276                             |
| S14K625                    | 1000                 | $\pm 10$                    | 1650                  | 50,0     | 150                               | 250                       | 277                             |
| S20K625                    | 1000                 | $\pm 10$                    | 1650                  | 100,0    | 280                               | 253                       | 278                             |
| S10K680                    | 1100                 | $\pm 10$                    | 1815                  | 25,0     | 85                                | 249                       | 276                             |
| S14K680                    | 1100                 | $\pm 10$                    | 1815                  | 50,0     | 140                               | 250                       | 277                             |
| S20K680                    | 1100                 | $\pm 10$                    | 1815                  | 100,0    | 250                               | 253                       | 278                             |
| S14K1000 <sup>1)</sup>     | 1800                 | $\pm 10$                    | 2970                  | 50,0     | 100                               | 250                       | 277                             |
| S20K1000 <sup>1)</sup>     | 1800                 | $\pm 10$                    | 2970                  | 100,0    | 170                               | 253                       | 278                             |

1) Operating voltage differs from type designation.



1) Seating plane according to IEC 60717

VAR0408-C

### Dimensions

| Type        | $e \pm 1$<br>mm | $a \pm 1$<br>mm | $b_{\max}$<br>mm | $s_{\max}$<br>mm | $h_{\max}$<br>mm | $l_{\min}$<br>mm | $d \pm 0,05$<br>mm |
|-------------|-----------------|-----------------|------------------|------------------|------------------|------------------|--------------------|
| SIOV-S05K11 | 5,0             | 1,2             | 7,0              | 3,3              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K11 | 5,0             | 1,2             | 9,0              | 3,4              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K11 | 7,5 (5)         | 1,4 (1,2)       | 12,0             | 4,0 (3,6)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K11 | 7,5             | 1,4             | 15,5             | 4,0              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K11 | 10,0            | 1,5             | 21,5             | 4,5              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K14 | 5,0             | 1,3             | 7,0              | 3,4              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K14 | 5,0             | 1,3             | 9,0              | 3,5              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K14 | 7,5 (5)         | 1,5 (1,3)       | 12,0             | 4,2 (3,8)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K14 | 7,5             | 1,5             | 15,5             | 4,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K14 | 10,0            | 1,6             | 21,5             | 4,6              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K17 | 5,0             | 1,4             | 7,0              | 3,5              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K17 | 5,0             | 1,4             | 9,0              | 3,6              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K17 | 7,5 (5)         | 1,6 (1,4)       | 12,0             | 4,4 (4,0)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K17 | 7,5             | 1,7             | 15,5             | 4,4              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K17 | 10,0            | 1,8             | 21,5             | 4,8              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K20 | 5,0             | 1,2             | 7,0              | 3,5              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K20 | 5,0             | 1,2             | 9,0              | 3,6              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K20 | 7,5 (5)         | 1,8 (1,6)       | 12,0             | 4,5 (4,1)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K20 | 7,5             | 1,9             | 15,5             | 4,6              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K20 | 10,0            | 2,1             | 21,5             | 5,1              | 25,5             | 30,0             | 1,0                |

Dimensions in ( ) apply to the taped version with 5 mm lead spacing. For (\*) see chapter "Taping", page 206 ff.



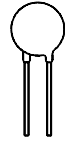
## Leaded Varistors

### Standard Series

#### Dimensions

| Type        | $e \pm 1$<br>mm | $a \pm 1$<br>mm | $b_{\max}$<br>mm | $s_{\max}$<br>mm | $h_{\max}$<br>mm | $l_{\min}$<br>mm | $d \pm 0,05$<br>mm |
|-------------|-----------------|-----------------|------------------|------------------|------------------|------------------|--------------------|
| SIOV-S05K25 | 5,0             | 1,3             | 7,0              | 3,6              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K25 | 5,0             | 1,3             | 9,0              | 3,7              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K25 | 7,5 (5)         | 1,6 (1,4)       | 12,0             | 4,2 (3,8)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K25 | 7,5             | 1,7             | 15,5             | 4,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K25 | 10,0            | 1,8             | 21,5             | 4,7              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K30 | 5,0             | 1,5             | 7,0              | 3,6              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K30 | 5,0             | 1,5             | 9,0              | 3,7              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K30 | 7,5 (5)         | 1,7 (1,5)       | 12,0             | 4,4 (4,0)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K30 | 7,5             | 1,8             | 15,5             | 4,4              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K30 | 10,0            | 2,0             | 21,5             | 4,9              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K35 | 5,0             | 1,6             | 7,0              | 3,7              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K35 | 5,0             | 1,6             | 9,0              | 3,9              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K35 | 7,5 (5)         | 1,8 (1,6)       | 12,0             | 4,4 (4,0)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K35 | 7,5             | 2,0             | 15,5             | 4,5              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K35 | 10,0            | 2,2             | 21,5             | 5,1              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K40 | 5,0             | 1,8             | 7,0              | 3,9              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K40 | 5,0             | 1,8             | 9,0              | 4,1              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K40 | 7,5 (5)         | 2,1 (1,9)       | 12,0             | 4,8 (4,4)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K40 | 7,5             | 2,2             | 15,5             | 4,9              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K40 | 10,0            | 2,4             | 21,5             | 5,4              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K50 | 5,0             | 1,2             | 7,0              | 3,3              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K50 | 5,0             | 1,2             | 9,0              | 3,3              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K50 | 7,5 (5)         | 1,4 (1,2)       | 12,0             | 3,9 (3,5)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K50 | 7,5             | 1,4             | 15,5             | 3,9              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K50 | 10,0            | 1,5             | 21,5             | 4,3              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K60 | 5,0             | 1,2             | 7,0              | 3,3              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K60 | 5,0             | 1,2             | 9,0              | 3,3              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K60 | 7,5 (5)         | 1,4 (1,2)       | 12,0             | 4,0 (3,6)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K60 | 7,5             | 1,5             | 15,5             | 4,0              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K60 | 10,0            | 1,6             | 21,5             | 4,4              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K75 | 5,0             | 1,3             | 7,0              | 3,4              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K75 | 5,0             | 1,3             | 9,0              | 3,6              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K75 | 7,5 (5)         | 1,5 (1,3)       | 12,0             | 4,2 (3,8)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K75 | 7,5             | 1,5             | 15,5             | 4,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K75 | 10,0            | 1,6             | 21,5             | 4,6              | 25,5             | 30,0             | 1,0                |

Dimensions in ( ) apply to the taped version with 5 mm lead spacing. For (\*) see chapter "Taping", page 206 ff.



# Leaded Varistors

## Standard Series

### Dimensions

| Type         | $e \pm 1$<br>mm | $a \pm 1$<br>mm | $b_{\max}$<br>mm | $s_{\max}$<br>mm | $h_{\max}$<br>mm | $l_{\min}$<br>mm | $d \pm 0,05$<br>mm |
|--------------|-----------------|-----------------|------------------|------------------|------------------|------------------|--------------------|
| SIOV-S05K95  | 5,0             | 1,3             | 7,0              | 3,4              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K95  | 5,0             | 1,3             | 9,0              | 3,4              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K95  | 7,5 (5)         | 1,5 (1,3)       | 12,0             | 4,0 (3,6)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K95  | 7,5             | 1,5             | 15,5             | 4,0              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K95  | 10,0            | 1,6             | 21,5             | 4,5              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K115 | 5,0             | 1,5             | 7,0              | 3,6              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K115 | 5,0             | 1,5             | 9,0              | 3,6              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K115 | 7,5 (5)         | 1,6 (1,4)       | 12,0             | 4,2 (3,8)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K115 | 7,5             | 1,7             | 15,5             | 4,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K115 | 10,0            | 1,8             | 21,5             | 4,6              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K130 | 5,0             | 1,6             | 7,0              | 3,6              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K130 | 5,0             | 1,6             | 9,0              | 3,6              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K130 | 7,5 (5)         | 1,8 (1,6)       | 12,0             | 4,2 (3,8)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K130 | 7,5             | 1,9             | 15,5             | 4,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K130 | 10,0            | 2,0             | 21,5             | 4,7              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K140 | 5,0             | 1,7             | 7,0              | 3,7              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K140 | 5,0             | 1,7             | 9,0              | 3,7              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K140 | 7,5 (5)         | 1,9 (1,7)       | 12,0             | 4,3 (3,9)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K140 | 7,5             | 2,0             | 15,5             | 4,3              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K140 | 10,0            | 2,1             | 21,5             | 4,8              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K150 | 5,0             | 1,8             | 7,0              | 3,8              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K150 | 5,0             | 1,8             | 9,0              | 3,8              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K150 | 7,5 (5)         | 2,0 (1,8)       | 12,0             | 4,4 (4,0)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K150 | 7,5             | 2,1             | 15,5             | 4,4              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K150 | 10,0            | 2,2             | 21,5             | 4,9              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K175 | 5,0             | 2,0             | 7,0              | 3,9              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K175 | 5,0             | 2,0             | 9,0              | 4,0              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K175 | 7,5 (5)         | 2,2 (2,0)       | 12,0             | 4,6 (4,2)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K175 | 7,5             | 2,2             | 15,5             | 4,6              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K175 | 10,0            | 2,3             | 21,5             | 5,0              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K230 | 5,0             | 1,8             | 7,0              | 4,0              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K230 | 5,0             | 1,8             | 9,0              | 4,0              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K230 | 7,5 (5)         | 2,0 (2,3)       | 12,0             | 4,7 (4,3)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K230 | 7,5             | 2,0             | 15,5             | 4,7              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K230 | 10,0            | 2,1             | 21,5             | 5,1              | 25,5             | 30,0             | 1,0                |

Dimensions in ( ) apply to the taped version with 5 mm lead spacing. For (\*) see chapter "Taping", page 206 ff.



## Leaded Varistors

### Standard Series

#### Dimensions

| Type         | $e \pm 1$<br>mm | $a \pm 1$<br>mm | $b_{\max}$<br>mm | $s_{\max}$<br>mm | $h_{\max}$<br>mm | $l_{\min}$<br>mm | $d \pm 0,05$<br>mm |
|--------------|-----------------|-----------------|------------------|------------------|------------------|------------------|--------------------|
| SIOV-S05K250 | 5,0             | 1,8             | 7,0              | 4,2              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K250 | 5,0             | 1,8             | 9,0              | 4,2              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K250 | 7,5 (5)         | 2,0 (1,8)       | 12,0             | 4,8 (4,4)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K250 | 7,5             | 2,0             | 15,5             | 4,8              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K250 | 10,0            | 2,2             | 21,5             | 5,3              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K275 | 5,0             | 2,0             | 7,0              | 4,3              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K275 | 5,0             | 2,0             | 9,0              | 4,4              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K275 | 7,5 (5)         | 2,2 (2,0)       | 12,0             | 5,0 (4,6)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K275 | 7,5             | 2,2             | 15,5             | 5,0              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K275 | 10,0            | 2,3             | 21,5             | 5,4              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K300 | 5,0             | 2,1             | 7,0              | 4,5              | 8,5              | 30,0             | 0,6                |
| SIOV-S07K300 | 5,0             | 2,1             | 9,0              | 4,5              | 11,0             | 30,0             | 0,6                |
| SIOV-S10K300 | 7,5 (5)         | 2,3 (2,1)       | 12,0             | 5,1 (4,7)        | 14,5             | 30,0 (*)         | 0,8 (0,6)          |
| SIOV-S14K300 | 7,5             | 2,3             | 15,5             | 5,2              | 18,5             | 30,0             | 0,8                |
| SIOV-S20K300 | 10,0            | 2,4             | 21,5             | 5,6              | 25,5             | 30,0             | 1,0                |
| SIOV-S10K320 | 7,5             | 2,4             | 12,0             | 5,4              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K320 | 7,5             | 2,4             | 15,5             | 5,4              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K320 | 10,0            | 2,6             | 21,5             | 5,8              | 25,5             | 30,0             | 1,0                |
| SIOV-S05K385 | 5,0             | 2,5             | 7,0              | 5,1              | 9,0              | 30,0             | 0,6                |
| SIOV-S07K385 | 5,0             | 2,5             | 9,0              | 5,2              | 11,5             | 30,0             | 0,6                |
| SIOV-S10K385 | 7,5             | 2,7             | 12,0             | 5,8              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K385 | 7,5             | 2,7             | 15,5             | 5,9              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K385 | 10,0            | 2,8             | 21,5             | 6,3              | 26,0             | 30,0             | 1,0                |
| SIOV-S05K420 | 5,0             | 2,8             | 7,0              | 5,4              | 9,0              | 30,0             | 0,6                |
| SIOV-S07K420 | 5,0             | 2,8             | 9,0              | 5,4              | 11,5             | 30,0             | 0,6                |
| SIOV-S10K420 | 7,5             | 2,9             | 12,0             | 6,1              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K420 | 7,5             | 2,9             | 15,5             | 6,1              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K420 | 10,0            | 3,1             | 21,5             | 6,5              | 26,0             | 30,0             | 1,0                |
| SIOV-S05K440 | 5,0             | 2,8             | 7,0              | 5,5              | 9,0              | 30,0             | 0,6                |
| SIOV-S07K440 | 5,0             | 2,8             | 9,0              | 5,5              | 11,5             | 30,0             | 0,6                |
| SIOV-S10K440 | 7,5             | 3,0             | 12,0             | 6,2              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K440 | 7,5             | 3,0             | 15,5             | 6,3              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K440 | 10,0            | 3,1             | 21,5             | 6,7              | 26,0             | 30,0             | 1,0                |

Dimensions in ( ) apply to the taped version with 5 mm lead spacing. For (\*) see chapter "Taping", page 206 ff.



## Leaded Varistors

### Standard Series

#### Dimensions

| Type          | $e \pm 1$<br>mm | $a \pm 1$<br>mm | $b_{\max}$<br>mm | $s_{\max}$<br>mm | $h_{\max}$<br>mm | $l_{\min}$<br>mm | $d \pm 0,05$<br>mm |
|---------------|-----------------|-----------------|------------------|------------------|------------------|------------------|--------------------|
| SIOV-S05K460  | 5,0             | 3,0             | 7,0              | 5,7              | 9,0              | 30,0             | 0,6                |
| SIOV-S07K460  | 5,0             | 3,0             | 9,0              | 5,7              | 11,5             | 30,0             | 0,6                |
| SIOV-S10K460  | 7,5             | 3,1             | 12,0             | 6,3              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K460  | 7,5             | 3,1             | 15,5             | 6,4              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K460  | 10,0            | 3,3             | 21,5             | 6,8              | 26,0             | 30,0             | 1,0                |
| SIOV-S10K510  | 7,5             | 3,4             | 12,0             | 6,7              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K510  | 7,5             | 3,4             | 15,5             | 6,8              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K510  | 10,0            | 3,5             | 21,5             | 7,1              | 26,0             | 30,0             | 1,0                |
| SIOV-S10K550  | 7,5             | 3,7             | 12,0             | 7,1              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K550  | 7,5             | 3,7             | 15,5             | 7,2              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K550  | 10,0            | 3,9             | 21,5             | 7,5              | 26,0             | 30,0             | 1,0                |
| SIOV-S10K625  | 7,5             | 4,0             | 12,0             | 7,5              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K625  | 7,5             | 4,0             | 15,5             | 7,5              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K625  | 10,0            | 4,2             | 21,5             | 7,9              | 26,0             | 30,0             | 1,0                |
| SIOV-S10K680  | 7,5             | 4,4             | 12,0             | 7,9              | 15,0             | 30,0             | 0,8                |
| SIOV-S14K680  | 7,5             | 4,4             | 15,5             | 8,0              | 19,0             | 30,0             | 0,8                |
| SIOV-S20K680  | 10,0            | 4,5             | 21,5             | 8,4              | 26,0             | 30,0             | 1,0                |
| SIOV-S14K1000 | 7,5             | 6,7             | 15,5             | 11,0             | 20,5             | 30,0             | 0,8                |
| SIOV-S20K1000 | 10,0            | 6,9             | 21,5             | 11,4             | 28,5             | 30,0             | 1,0                |

#### Weight

| Size            | approx.        |                                                                               |
|-----------------|----------------|-------------------------------------------------------------------------------|
| S05K11 ... 460  | 0,3 ... 0,7 g  | The weight of varistors in between these voltage classes can be interpolated. |
| S07K11 ... 460  | 0,4 ... 1,1 g  |                                                                               |
| S10K11 ... 680  | 1,0 ... 3,0 g  |                                                                               |
| S14K11 ... 1000 | 1,4 ... 7,6 g  |                                                                               |
| S20K11 ... 1000 | 2,7 ... 15,7 g |                                                                               |

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